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(54) Title: **VAULT AND VAULT-LIKE CARRIER MOLECULES**

(57) Abstract: A method of using vaults as carrier molecules to deliver one or more than one substance to an organism, or to a specific tissue or to specific cells, or to an environmental medium. A vault-like particle. A method of preventing damage by one or more than one substance to an organism, to a specific tissue, to specific cells, or to an environmental medium, by sequestering the one or more than one substance within a vault-like particle. A method of delivering one or more than one substance or a sensor to an organism, to a specific tissue, to specific cells, or to an environmental medium. According to another embodiment of the present invention, there is provided a method of making vault-like particles, and making vault-like particles comprising one or more than one substance, or one or more than one sensor.